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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Duane Heaton
Deputy Project Officer
Emergency Support Section, 5 HS-12
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

February 23, 1990

TAT-05-G2-01614

Re: Interstate Pollution Control, Rockford, Illinois
TDD# 5-8911-22

Dear Mr. Heaton:

On November 27, 1989, the U.S. Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to conduct a site assessment and sampling action at the Interstate Pollution Control (IPC) National Priorities List (NPL) site to determine if conditions were present which may warrant a possible removal action. This letter report includes a brief site history, a summary of the TAT activities, and interpretation of analytical results.

The IPC site, located in Rockford, Winnebago County, Illinois, is bordered to the north by the Gunit Company, to the west by the Quaker Oats Company, to the south by Quaker Avenue and Peoples Avenue Landfill, and to the east by Seminary Road and a metal reclamation plant (Figures 1 and 2). Site topography is predominately flat, with a small mound on the east side of the IPC site, where a capped lagoon lies. Surface and ground water drainage from the site flows southwest towards the Rock River (Phillips 1986) situated one-quarter mile west of the site. Local businesses and residences located downgradient are connected to municipal water. The upper bedrock formations consist mainly of dolomites. Unconsolidated glacial sands and gravels overlie the dolomite bedrock. These sand and gravel deposits form a highly productive aquifer that is utilized as a water source for most residents of Winnebago County.

IPC is a four-acre inactive waste storage facility which accepted solvents, cyanide wastes, paint sludges, and waste oils and operated from 1974 to 1982. The site is presently used for scrap metal and wood storage, and for parking Roto Rooter sewage pump trucks. Site access is unrestricted.

Roy F. Weston, Inc.

MAJOR PROGRAMS DIVISION

In Association with ICF Technology, Inc., C.C. Johnson & Malhotra, P.C., Resource Applications, Inc.,

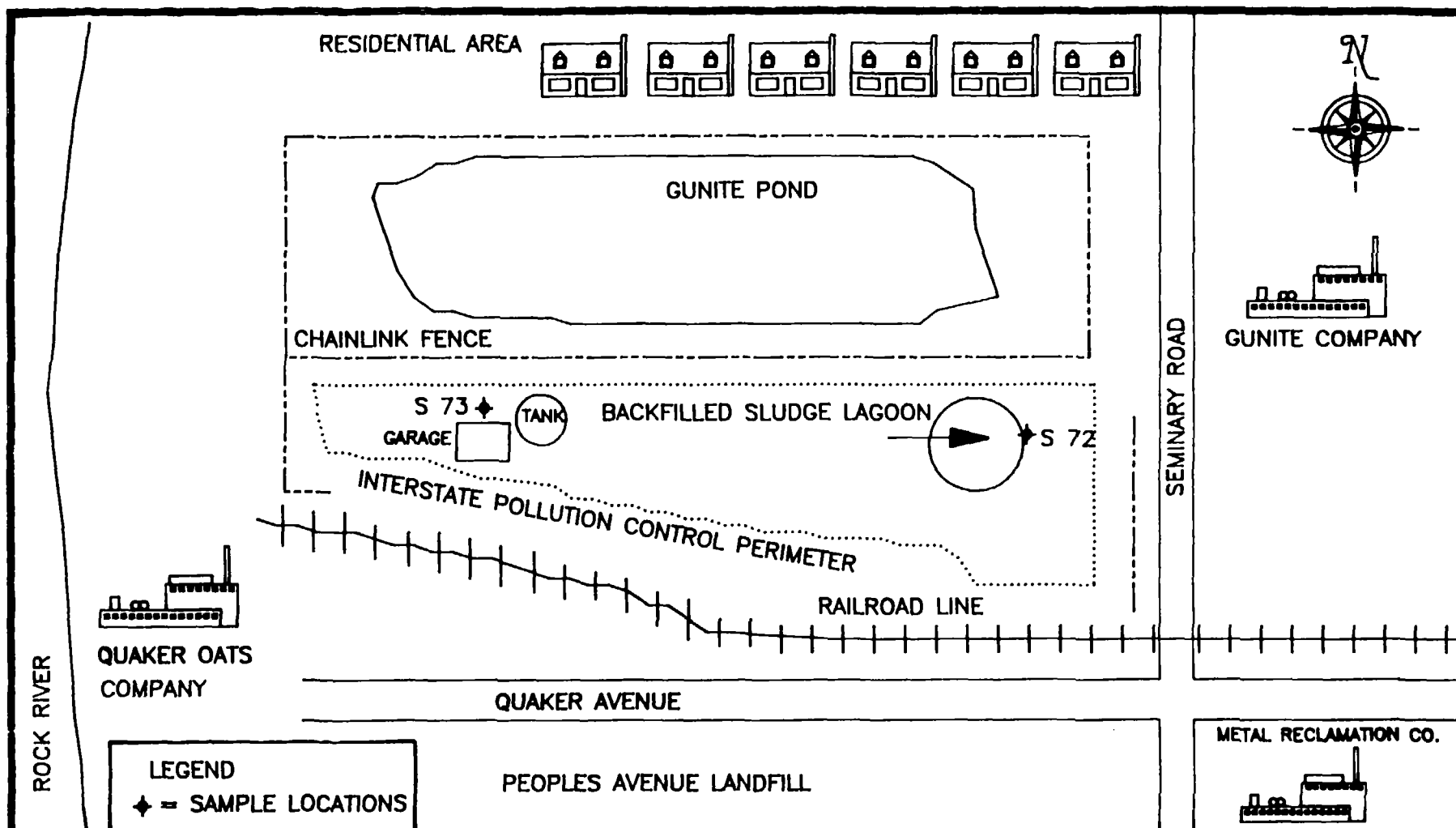


FIGURE 2
SITE MAP WITH SAMPLE LOCATIONS
INTERSTATE POLLUTION CONTROL
ROCKFORD, ILLINOIS

NOT TO SCALE

WESTON
MANAGERS DESIGNERS/CONSULTANTS

MAJOR
PROGRAMS
DIVISION

REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY
MSP

DATE
12-20-89

PCS #
2499

APPROVED BY
C.CARON

DATE
12-20-89

TDD #
5-8911-22



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On March 13, and 14, 1979 the National Enforcement Investigation Center (NEIC) sampled soils, the sludge lagoon, and the 100,000 gallon reclaimed oil tank on the site. Analytical results of soil samples indicated the presence of volatile organic compounds (VOCs), cyanide, and heavy metals in elevated concentrations. Contaminated soils and approximately 1,200 drums of liquids were removed from the site in 1979 during a site cleanup.

In April 1985, the U.S. EPA Field Investigation Team (FIT) conducted ground water sampling at the IPC site. The results indicated ground water contamination with vinyl chloride at 140 parts per billion (ppb), chloroethane (46 ppb), 1,1-dichloroethane (27 ppb), trans-1,2-dichloroethene (1500 ppb), 1,1,1-trichloroethane (2100 ppb), trichloroethene (20 ppb), tetrachloroethene (17 ppb), 1,1-dichloroethene (27 ppb), and chloroform (27 ppb). Heavy metals were also detected in the ground water, including chromium (81 ppb), nickel (65 ppb), selenium (8 ppb) and cyanide (18 ppb).

On July 27, 1988, TAT performed a site assessment which included soil sampling to evaluate the threat to human health and the environment posed by the site (TDD#5-8807-12). Analytical results indicated the presence of lead (384 parts per million [ppm]), copper (276 ppm), selenium (9 ppm), cadmium (11 ppm), zinc (1484 ppm), and total cyanide (22 ppm). Organic compounds di-n-butylphthalate (49 ppm), and bis(2-ethylhexyl)phthalate (130 ppm) were also detected. IPC representative Bill Skoglund reported that the 100,000 gallon tank had been pumped out shortly after the 1979 cleanup. The sludge lagoon had been filled and graded with gravel and covered with scrap metal. Mr. Skoglund also reported that the lagoon sludges had been removed prior to capping.

In September 1988, the sample results along with the site description information was reviewed by the Agency for Toxic Substances and Disease Registry (ATSDR). The ATSDR reported that the IPC site posed no immediate threat to human health or the environment, and recommended no further action.

On October 11, 1989, after reviewing the IPC NPL site files, the TAT conducted a perimeter site investigation at IPC (TDD#5-8908-26). The TAT observed that the fence on the south side of the site was not intact. Residential and industrial wastes were observed around the site. Stained surface soil was observed near the 100,000 gallon storage tank. Drums were observed in the on-site building. Based on these observations, it was determined that an additional site investigation was necessary.



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On December 5, 1989, TAT members Chuck Caron and Mike Piro met with U.S. EPA On-Scene Coordinator (OSC) Len Zintak and conducted a site investigation at IPC. Two on-site soil samples were collected, one at the capped lagoon area, and another north of the on-site building. A background soil sample was collected off site. One 5-gallon pail of industrial finish was also sampled. The drums observed on site during the perimeter investigation were empty. All samples were sent to Suburban Laboratories for analysis under TAT Analytical Services TDD#5-8912-L2. The soil samples were analyzed for polychlorinated biphenyls (PCBs), acid and base/neutral (ABN) compounds, total cyanide, Extraction Procedure Toxicity (EP Tox) metals and the following total metals: chromium, cadmium, zinc, lead and nickel. The pail sample was analyzed for total and reactive cyanide and sulfide, flash point and pH.

Analytical results from the soil sampling are summarized in Table 1. Both the samples collected from the lagoon area (S72) and north of the on-site building (S73) indicated elevated levels of cadmium, chromium, total cyanide, lead, nickel and zinc when compared to the background sample (S74). The samples (S72 and S73) also contained benzylbutylphthalate, bis(2-ethylhexyl)phthalate, di-n-butylphthalate and naphthalene. The sample collected north of the on-site building (S73) additionally contained acenaphthylene, anthracene, dimethylphthalate, phenanthrene, 4-chloro-3-methylphenol and phenol. PCBs were not detected above method detection limits and EP tox metals were all below the maximum concentration.

Analytical results of the sample collected from the 5-gallon pail of industrial finish indicated total cyanide of 0.715 ppm, total sulfide of 0.579 ppm, a pH of 5.7 and a flash point of 65 degrees (°) Fahrenheit (F). The material sampled would be considered a hazardous waste based on the Resource Conservation and Recovery Act (RCRA) characteristic of ignitability (<140°F).

Conditions present at the IPC site that may be considered to warrant a removal action as set forth in Section 300.65 paragraph (b)(2) of the National Contingency Plan (NCP) include:

- o Potential exposure to hazardous substances by nearby populations or animals;

The TAT analytical results documented elevated levels of cyanide, chromium, cadmium, nickel, zinc and lead at the soil surface. The proximity of neighboring residences and unrestricted access to the site poses a threat of exposure.

TABLE 1

ANALYTICAL RESULTS OF TAT SOIL SAMPLING¹
 INTERSTATE POLLUTION CONTROL
 ROCKFORD, ILLINOIS
 DECEMBER 5, 1989
 (all results in ppm)

<u>Parameter</u>	LOCATION		
	<u>Lagoon Area</u> (S72)	<u>North of Building</u> (S73)	<u>Background</u> (S74)
Cadmium	145.0	36.2	1.62
Chromium	1579.0	538.0	4.58
Cyanide, Total	427.0	1.58	0.715
Lead	1486.0	1233.0	26.7
Nickel	540.0	540.0	1.76
Zinc	5559.0	6609	33.5
Acenaphthylene	ND	1.6	ND
Anthracene	ND	2.2	.10
Benzylbutylphthalate	18.1	3.6	ND
Bis(2-ethylhexyl)phthalate	178.2	39.7	ND
Dimethylphthalate	ND	1.7	ND
Di-n-butylphthalate	7.8	98.0	ND
Di-n-octylphthalate	34.8	ND	ND
Naphthalene	6.1	2.6	ND
Phenanthrene	ND	2.4	ND
4-chloro-3-methylphenol	ND	3.7	ND
Phenol	ND	1.9	ND

ND - None detected above laboratory method detection level 1 ppb

¹ Samples analyzed by Suburban Labs



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- o Weather conditions that may cause hazardous substances to migrate or be released;

In the event of heavy rains or runoff following a snow melt, it is likely that the contaminants at the soil surface will migrate, creating a greater area of contamination, and eventually may migrate off site to unaffected areas.

- o Threat of fire or explosion.

The pail contents sampled by the TAT indicated a flash point of 65°F, presenting a fire or explosion threat. In addition, an explosion or fire could distribute hazardous particulate matter to nearby, uncontaminated areas.

The analytical results and site description will be reviewed by the ATSDR to determine appropriate actions.

Should you have any questions or require additional information, please feel free to contact us.

Very truly yours,

ROY F. WESTON, INC.

A handwritten signature in dark ink, appearing to read "Mike Piro".

Mike Piro
Environmental Chemist

A handwritten signature in dark ink, appearing to read "William R. Doyle".

William R. Doyle
Technical Assistance Team
Leader, Region V

MP:dn

cc: Len Zintak, OSC

ATTACHMENT

SITE PHOTOGRAPHS



PHOTO: 3
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: WEST VIEW BROKEN FENCE, NORTH SIDE
 DATE/TIME: 12-5-89/1200
 PHOTOGRAPHER: LEN ZINTAK
 CAMERA: 35 mm



PHOTO: 4
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: 5 GALLON PAILS FOUND ON SITE
 DATE/TIME: 12-5-89/1115
 PHOTOGRAPHER: LEN ZINTAK
 CAMERA: 35 mm



PHOTO: 1
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: STAINED SOIL NORTH OF BUILDING
 DATE/TIME: 12-5-89/1145
 PHOTOGRAPHER: LEN ZINTAK
 CAMERA: 35 mm



PHOTO: 2
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: SAMPLING SOIL AT LAGOON AREA
 DATE/TIME: 12-5-89/1130
 PHOTOGRAPHER: LEN ZINTAK
 CAMERA: 35 mm



PHOTO: 1
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: EAST VIEW OF OPEN GATE
 DATE/TIME: 10-10-89/ 1000 HRS
 PHOTOGRAPHER: M. PIRO
 CAMERA: INSTAMATIC 126



PHOTO: 2
 SITE: INTERSTATE POLLUTION CONTROL
 DESCRIPTION: SOUTH VIEW BROKEN FENCE
 DATE/TIME: 10-10-89/ 1000 HRS
 PHOTOGRAPHER: M. PIRO
 CAMERA: INSTAMATIC 126